

After the Cutting is Done, What's Left?

An Evaluation of Forest Practices in Maine 1991-1993

by Mitch Lansky, March 1996

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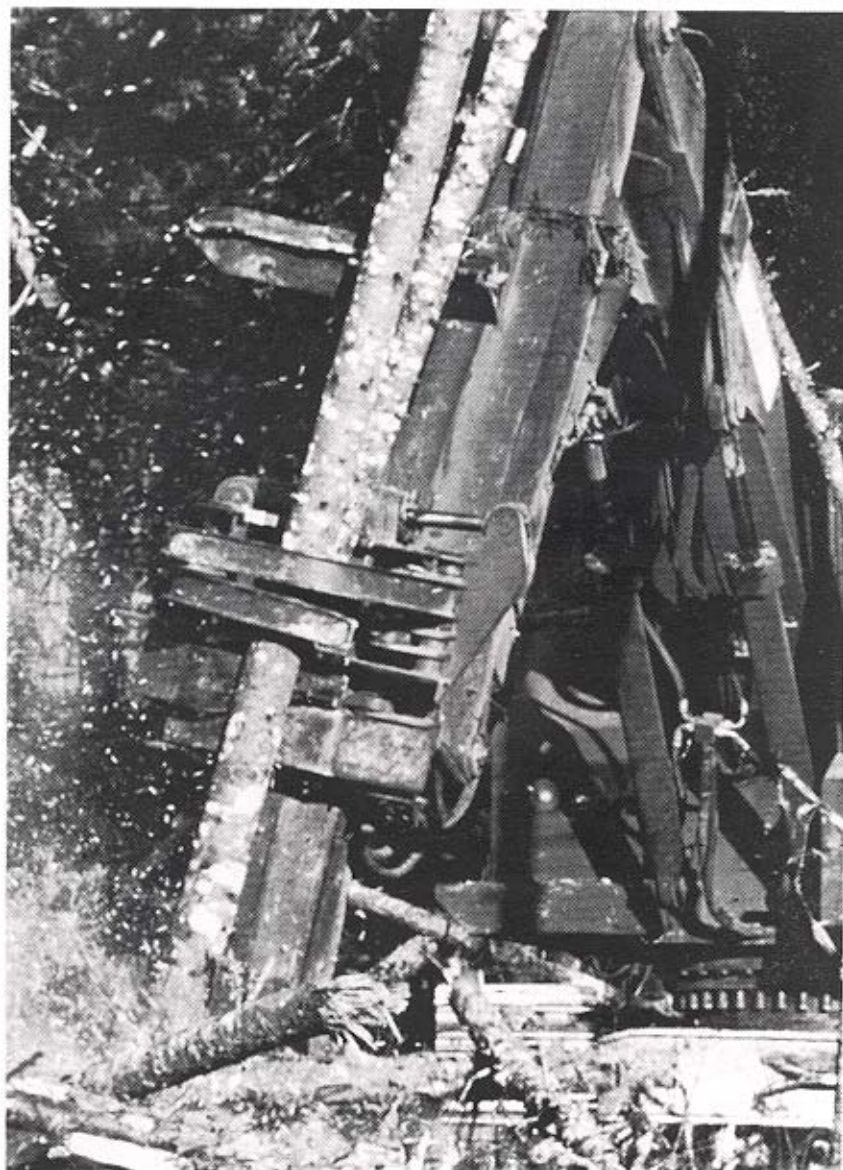


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I: Executive Summary

After the cutting is done, what's left? In this study, I use Maine Forest Service (MFS) data, collected in 1994, to assess forest practices from 1991-1993. I ask of the data the following questions:

- Has Maine's Forest Practices Act (which went into effect in 1991) prevented abusive clearcutting?
- Are landowners cutting in stands that are adequately stocked?
- What proportion of partial cuts in Maine leave behind stands that are understocked, heavily cut, or with severe highgrading or logging damage?
- How many acres a year does this represent?
- What proportion of partial cuts meet silviculturally recommended stocking levels and have minimal highgrading or logging damage?

The answers I got indicate that there are serious problems with forest practices in Maine. Substandard forestry is occurring in Maine on a huge annual scale.

To answer these questions I analyze both clearcuts and partial cuts by forest and landowner type, and I assess partial cuts against various silvicultural stocking and quality standards. In choosing such standards, I generally gave the landowners the benefit of the doubt; *thus my conclusions are understatements*. This study looks only at silvicultural standards and does not address ecological or social implications of the data.

The MFS survey, which is the only random survey available of recent cutting in Maine, was limited due to constraints of money and time. At more refined levels of analysis there were sometimes insufficient sampled cutting operations to be statistically valid. The figures I derived from the data should be seen as rough estimates, rather than precise descriptions. Although numbers on a spreadsheet are a poor substitute for a forest, if the numbers show overcutting, understocking, and poor harvest quality, the odds are that the cutting was not exemplary.

A: Highlights—Clearcuts

- Four-fifths of all clearcuts in the state are being done on industry land.
- While the individual size of clearcuts is restricted, landowners who want to can, and do, create clearcut clusters that collectively cover thousands of acres in a single township. The MFS found one township with more than 3,400 acres of such clusters created 1991-1993.
- Half the clearcuts in the state were in large clusters in just 44 townships.
- The annual acreage of "clearcuts" (as defined by the MFS) has gone down since 1989. If you include severely-highgraded, grossly understocked "partial-cut" stands (which used to be called "commercial clearcuts" before 1990) and you add on "overstory removals" (which differ from clearcuts by having advanced regeneration) then heavy cutting that essentially starts a new stand has not significantly decreased.

B: Highlights—Partial Cuts

- More than two-fifths of the partial-cut acres sampled were “understocked” (did not have enough mature trees to have a manageable stand). This represents 154,000 acres per year.
- Landowners removed more than 40% of the stand in nearly half of the sampled partial-cut acres.
- Less than one-tenth of all partial-cut acres retained recommended stocking for an adequate growth response.
- If the sampling was accurate, around 57,000 acres of partial cuts per year had harvest quality so poor (due to highgrading and stand damage) that the MFS found it unacceptable. Another 108,700 had low-marginal acceptability. These represent slightly less than half of all partial cuts.
- The landowner categories varied considerably in their practices, with contractor-owners consistently scoring lowest for stocking and quality.
- The average annual land area with clearcutting, overstory removals, or understocking each year is equivalent to more than ten 36-square-mile townships—around 244,600 acres.
- At the 1994 cutting rate, the entire commercial forest will be cut over in slightly more than 30 years.
- The logging trends from 1991-1993, if continued, would lead to vast areas with poor productivity and poor quality and to undesirable species shifts in the regenerating forest.



Heavy Cutting near Wilsons Mills, Maine. Photo © John McKeith